COPN REQUEST NUMBER VA-6467
LOUDOUN HOSPITAL CENTER
LOUDOUN COUNTY
ADDITION OF HOSPITAL BEDS

FINDINGS OF FACT

1. In June 2000, Loudoun Hospital Center (LHC) applied for a certificate of public need (COPN), seeking authorization from the State Health Commissioner to add 19 hospital beds to its existing 91-bed complement at its Lansdowne campus.

2. Sections 32.1-102.1 and 32.1-102.3 of the *Code of Virginia* require that "[a]n increase in the total number of beds or operating rooms in an existing medical care facility" must be approved by the State Health Commissioner through issuance of a COPN.

3. LHC is a 103-bed general hospital located in Loudoun County, Virginia. Twelve of the hospital's 103 beds are licensed as mental health beds and are located at LHC's Cornwall campus in Leesburg, Virginia. The remaining 91 licensed acute care beds are located at LHC's Lansdowne campus, which is situated approximately six miles east of Leesburg. Sixty-one of the Lansdowne beds are medical-surgical and pediatric, 19 are obstetric and 11 are intensive care.

4. Loudoun County is in Planning District (PD) 8, which is coterminous with Health Planning Region (HPR) II. The Health Systems Agency of Northern Virginia (HSANV) serves HPR II.

5. HSANV has designated LHC one of the essential community hospitals within HPR II, due in part to its role as a sole community provider for its service area and based on the conclusion that, given the lack of another proximate hospital and the population growth in the primary service area of LHC, a hospital would have to be built in the area if LHC did not exist.

6. LHC provided $1,464.061 of charity care in 1999. This is equivalent to 1.3 percent of the hospital's gross patient revenues. The median charity contribution for PD 8 acute care hospitals was 2.3 percent of such revenues in 1999. Demographic conditions may limit LHC's opportunity to make a larger contribution of resources to charity care.

7. In the mid-1990s, LHC developed its Lansdowne campus as a replacement for and relocation of its 119-licensed bed facility (12 mental health and 107 acute care beds) on Cornwall Street in Leesburg, otherwise known as the Cornwall campus. The Lansdowne campus was proposed with reduced capacity for acute care beds (from 107 to 80) as a result of the 1993 population projections for Loudoun County for the year 1999 as well as the requirements of the State Medical Facilities Plan (SMFP), which limits the size of replacement hospitals based, in part, upon occupancy in the hospital being

replaced. The Lansdowne campus' 80-bed acute care hospital opened in October of 1997.

8. Northern Virginia, as a region of the state, is experiencing extraordinary growth in population and development. The population of Loudoun County has grown at a rate that far exceeded 1993 projections, upon which the bed complement of the Lansdowne campus was devised. In 1999, the U.S. Census Bureau ranked Loudoun County third among all U.S. counties in its population growth rate.

9. In March 2001, the U.S. Census Bureau released various population data for Virginia based on the 2000 census; the table below includes some of these data. Loudoun County grew at the highest rate of any Virginia county or incorporated place; its 2000 population totaled 169,599 – nearly a 97 percent increase over its 1990 population of 86,129. Several other localities in northern Virginia exhibit extraordinary growth, outstripping the average Virginia growth rate of 14.4 percent – a significant rate in its own right. The intensity of growth in northern Virginia appears to be continuing with no abatement in sight.

Population Growth in Northern and North-Central Virginia

County or City:	Population –		Population growth, 1990 to 2000 –	
	2000:	1990:	Number:	Percentage:
Loudoun	169,599	86,129	83,470	96.9
Spotsylvania	90,395	57,403	32,992	57.5
Stafford	92,446	61,236	31,210	51.0
Prince William	280,813	215,686	65,127	30.2
Fairfax	969,749	818,584	151,165	18.5
Alexandria	128,283	111,183	17,100	15.4
Arlington	189,453	170,936	18,517	10.8

10. After a recent review of conditions in the HPR, HSANV determined that the areas of HPR II likely to experience the greatest population growth will be eastern Loudoun and western Fairfax counties.

11. In recent years, the increase in Loudoun's population has placed great demands on LHC. In 1997, the hospital applied for a COPN to reopen temporarily 20 medical-surgical beds at its Cornwall campus to address increased need. In March 1998, the State Health Commissioner granted approval of these beds, collectively referenced below as the transitional care unit (TCU).

12. LHC opened the TCU in January of 1999; however, financial stress not specifically related to the operation of the unit prevented LHC from devoting sufficient resources to implement the TCU fully and make the unit function as intended, despite demand for the beds as evidenced by high occupancy levels of medical-surgical beds at the Lansdowne campus during this period. The unit remained open for five months, after

which time the financial stresses that LHC was experiencing forced the closure of the TCU.

13. The Virginia Department of Health, Division of Certificate of Public Need (DCOPN) evaluated this project and determined that medical-surgical and pediatric beds at LHC experienced an occupancy level of 72.7 percent in 1999. In devising this figure, DCOPN included the 20 beds in the TCU, which were licensed for a portion of the relevant period, thereby lowering the occupancy level. LHC contends that the actual occupancy level for these beds has exceeded 98 percent since January 1999.

14. In May 2000, with its financial condition stabilizing, LHC applied for and received a significant change approval to reopen 11 of the 20 TCU beds at its Lansdowne campus, thus increasing its total acute care bed compliment from 80 to 91. The additional 11 beds, which include nine medical-surgical beds, one intensive care unit (ICU) bed, and one obstetrics (OB) bed, have been fully operational since January 2001, and have been occupied since.

15. The Lansdowne campus has experienced a significant increase in its medical staff complement. In 1997, prior to the hospital's relocation, the medical staff was composed of approximately 150 physicians. When the hospital applied for a significant change to reopen 11 of the 20 TCU beds in 1999, the medical staff was composed of more than 300 physicians.

16. The vacancy rate for registered nurses (RNs) at LHC has dropped from 19 to 12 percent. In 2000, LHC increased the pay structure for RNs and began clinical fellowships in critical care areas. LHC has begun a program of actively recruiting nursing students and plans to precept 10 senior nursing students from George Mason University this year.

17. LHC originally sought 19 beds in the present application. During the process by which DCOPN and HSANV reviewed the application, LHC reportedly agreed with HSANV's recommendation that it amend the application to seek 16 beds. This decision reflected a strategic effort to increase the likelihood of a favorable decision at the programmatic regulatory level, *i.e.*, a recommendation of approval from DCOPN – short of the time and expense of an informal fact-finding conference (IFFC). (The addition of 16 beds would restore the number of beds at LHC to its 1993 level; decisions in other cases have established the precedent of such restorations at hospitals, when otherwise warranted.)

18. The staff report prepared by DCOPN recommended denial of the proposed project. The report, including all the statistical analyses developed to review the proposal, clearly contemplates a proposal to add 19 beds. At the IFFC, DCOPN noted that LHC "is seeking to add 19 beds to its current . . . capacity at its Lansdowne campus."

19. LHC proposes to construct an additional bed facility at its Lansdowne campus. The addition will occupy approximately 12,000 gross square feet of space and a 2,000

gross square foot expansion of the penthouse will be necessary in order to accommodate mechanical equipment. The existing pediatric "swing" unit will be renovated and inpatient physical therapy will be relocated in order to provide for expansion of the hospital's pharmacy.

20. The estimated capital cost of the project is $5,875,000 and includes; $4,133,100 direct construction; $200,000 additional equipment; $216,000 site preparation; $493,000 architecture and engineering fees; $100,000 consultant fees; and $652,700 conventional loan financing. Capital cost per gross square foot is $324.55.

21. By letter dated January 29, 2001, DCOPN notified LHC that DCOPN recommends denial of its application to add 19 medical-surgical and pediatric beds.

22. The adjudication officer writing this recommendation held an informal fact-finding conference (IFFC) on February 13, 2001, in Richmond, pursuant to Section 32.1-102.6 of the *Code of Virginia* to discuss this application. LHC was represented by counsel at this IFFC.

DISCUSSION

Section 32.1-102.3 B of the Code of Virginia requires that, in determining whether a public need for a proposed project has been demonstrated, the State Health Commissioner shall review an application for a certificate of public need in relation to the twenty considerations enumerated in that section. The following is a discussion of the application of Loudoun Hospital Center (LHC) for the addition of hospital beds in relation to these considerations.

1. The recommendation and the reasons therefor of the appropriate regional health planning agency.

The board of directors of the Health Systems Agency of Northern Virginia (HSANV), at its January 15, 2001, meeting, recommended approval of the proposed project, provided LHC agrees to modify the proposal and seek an increase of 16 beds, rather than 19. The board's vote was unanimous, with three abstentions. The Board of Directors of the HSANV based its decision on the following findings:

(i) Recent and projected inpatient demand at LHC substantially exceed the hospital's current licensed bed complement;

(ii) An increase in LHC's licensed bed complement of sixteen beds would permit LHC to reactivate the beds taken out of service when the hospital relocated to Lansdowne in October 1997, and would be consistent with the policy and precedent inherent in the recent approval granted to Inova Fair Oaks Hospital and Reston Hospital Center, both of which were permitted to reactivate previously licensed but deactivated beds;

(iii) Because of its unique service area, and unusually high use levels (in excess of 100 percent occupancy), expansion of LHC would not have a negative effect on any other community hospital;

(iv) Projected capital and operating costs are acceptable, consistent with those found elsewhere in the region and in Virginia;

(v) As an essential community hospital with a distinct service area, LHC is one of two hospitals in the region (Inova Fairfax Hospital is the other) that merit substantial expansion, regardless of overall regional capacity and use levels (*i.e.*, they merit favorable consideration for an exception to the SMFP availability standard, should that be necessary); and

(vi) The proposal is consistent with the spirit and intent of the State Medical Facilities Plan (SMFP), as acknowledged recently in the review of the expansion proposals submitted by Inova Fair Oaks Hospital and Reston Hospital Center.

2. The relationship of the project to the applicable health plans of the regional health planning agency, the Virginia Health Planning Board and the Board of Health.

The applicable health plan is the portion of the State Medical Facilities Plan (SMFP) found at 12 VAC 5-240-20 *et seq*. (Text appearing under this consideration in italics has been selected from the SMFP and precedes discussion of the proposed project in relation to the text.)

12 VAC 5-240-20. Accessibility. A. Acute care inpatient facility beds should be within 30 minutes average driving time, under normal conditions, of 90 percent of the population of a planning district.

There are ten acute care hospitals in PD 8. In 1999 (the last year for which official data are available), these hospitals operated a total of 2,438 licensed beds. Over 70 percent of these beds are situated in the northeastern quadrant of PD 8. Under favorable road conditions, 90 percent of the population may be within 30 minutes average driving time of an acute care inpatient facility.

Due to prevailing traffic congestion and road construction, however, a drive that might take 30 minutes under favorable conditions often takes considerably longer. In planning the siting of emergency rescue facilities, the Fairfax County Fire and Rescue Department currently uses a speed of 31.3 miles per hour in estimating the time needed to travel roads in the area. This speed has been reduced from 35 miles per hour in recent years, indicating that traveling northern Virginia roads has become slower due to development and traffic congestion. The southwest corner of Loudoun County, a mostly rural area, is clearly not within 30 minutes driving time of acute care inpatient facilities in PD 8, although it is within 30 minutes travel time of Faquier Hospital, in Warrenton, PD 9. LHC represents that at least 38.4 percent of Loudoun County residents have no hospital other than LHC within 30 minutes' driving time.

During the winter of late-1999 and early-2000, a pattern in which patients needing emergency medical care were rerouted, *i.e.*, they were diverted from geographically-close hospitals with acute care facilities to hospitals farther off, became routine in PD 8. This pattern developed reportedly due to the lack of available beds, particularly critical care beds. The table below shows the prevalence of re-routing during December 1999 and January 2000, and during May and June 2000.

Number of Days Hospitals Re-Routed Emergency Patients in PD 8, Winter of 1999-2000 and Spring-Summer of 2000

Facility	December 1999-January 2000		May-June 2000	
	Number of Days	Percent of Total Days (62)	Number of Days	Percent of Total Days (61)
Loudoun Hospital Center (LHC)	8	12.9	28	45.9
Reston Hospital Center	37	59.7	25	41.0
Fair Oaks Hospital (Inova)	45	72.6	33	54.1
Total Western PD 8	*90*	*48.4*	*86*	*28.2*
Fairfax Hospital (Inova)	31	50.0	34	55.7
Northern Va. Comm Hospital	45	72.6	11	18.0
Alexandria Hospital (Inova)	31	50.0	21	34.4
Arlington Hospital	29	46.8	16	26.2
Mount Vernon Hospital (Inova)	17	27.4	20	32.8
Total Eastern PD 8	*153*	*49.4*	*102*	*33.4*
Prince William Hospital	2	6.2	4	6.5
Potomac Hospital	0	0	0	0
Total Southern PD 8	*2*	*1.6*	*4*	*1.6*
TOTAL PD 8	247	39.8	190	31.2

In the winter of 1999-2000, almost 40 percent of hospital operating days in PD 8 involved rerouting of emergency patients to another hospital, either inside or outside PD 8. Almost one-third of hospital operating days in May and June 2000 involved emergency patient rerouting to another facility.

When rerouting occurs, the potential exists for acute care hospital services, particularly critical care services, to lie beyond 30 minutes' travel time to 90 percent of the population. When, for example, LHC, Reston Hospital Center and Inova Fair Oaks Hospital are diverting emergency patients simultaneously, the next nearest hospital is Inova Fairfax Hospital with an estimated travel time from Leesburg of 36 minutes. In 2006, the planning horizon for this application, about one-third of the population in PD 8 is projected to reside in the western part of the planning district, *i.e.*, western Fairfax and Loudoun Counties.

Rapid population growth, related commercial and residential development and road construction in northern Virginia have combined to make the difficulty of automotive travel exceeded only by the difficulty of predicting the amount of time needed to travel to and from points across the area. Governor Gilmore, in his January

2001 State of the Commonwealth address, recognized the gravity of travel problems in northern Virginia and announced that funding for road construction in this part of the state would increase seventy percent.

Significant traffic congestion is a chronic problem faced by residents of northern Virginia, regardless of whether and to what degree travel delays may be quantified reliably. LHC contends that "traveling just a few miles [in northern Virginia] can require a 30 to 45 minute drive." Under these conditions, distances between points, speed limit zones and other circumstances of routine automotive travel become unreliable in predicting travel time.

12 VAC 5-240-30. Availability. A. Need for new service. 1. No new acute inpatient care beds should be approved in any planning district unless the resulting number of licensed and approved beds in a planning district does not exceed the number of beds projected to be needed, for each acute inpatient bed category, for that planning district for the fifth planning horizon year.

As shown below, a calculation based on the methodology included in the SMFP suggests that 290 surplus medical-surgical and pediatric beds exist in PD 8. The addition of 19 general acute care beds at LHC would increase the inventory of beds in PD 8 by 1.3 percent. The actual patient days reported by PD 8 hospitals in 1999, however, constitutes 95.6 percent of the number of patient days predicted to be needed in 2006. This relationship suggests that the SMFP methodology is not the most reliable gauge of need in this case.

2. Notwithstanding the need for new acute inpatient care beds above, no proposals to increase the general medical/surgical and pediatric bed capacity in a planning district should be approved unless the average annual occupancy, based on the number of licensed beds in the planning district where the project is proposed, is at least 85 percent for the relevant reporting period.

PD 8 general medical-surgical and pediatric services, in total, experienced an average occupancy level of 67.3 percent in 1999. (Pentagon City Hospital closed in September 1999; this calculation excludes that hospital's beds, but includes its patient days.) The table on the following page shows the utilization levels for all PD 8 hospitals.

Licensed Beds and Utilization in PD 8, January 1999

Facility	Medical-Surgical			Pediatrics			Total (M-S and Ped's.)		
	Beds	Patient Days	Percent Occu-pancy	Beds	Patient Days	Percent Occu-pancy	Beds	Patient Days	Percent Occu-pancy
*Loudoun Hospital Center**	65	18,347	77.3	7	753	29.5	72	19,100	72.7
Alexandria Hospital (Inova)	207	51,959	68.8	24	1,958	22.4	231	53,917	63.9
Arlington Hospital	215	42,230	53.8	15	3,148	57.5	230	45,378	54.1
Fairfax Hospital (Inova)	408	129,705	87.1	57	21,678	104.2	465	151,383	89.2
Fair Oaks Hospital (Inova)	85	17,478	56.3	8	1,393	47.7	93	18,871	55.6
Mount Vernon Hospital (Inova)	122	31,191	70.0	0	0	0.0	122	31,191	70.0
Northern Virginia Community Hospital	132	17,780	36.9	0	0	0.0	132	17,780	36.9
Pentagon City Hospital**	94	6,851	20.0	0	0	0.0	94	6,851	20.0
Potomac Hospital	100	21,273	58.3	12	1,717	39.2	112	22,990	56.2
Prince William Hospital	99	15,226	42.1	14	1,704	33.3	113	16,930	41.0
Reston Hospital Center	63	18,095	78.7	13	2,093	44.2	76	20,188	72.8
Total	1590	370,135	63.8	150	34,444	62.9	1,740	404,579	63.7
Total (less Pentagon City beds)	1496	370,135	67.8	--	--	--	1,646	404,579	67.3

*Includes 20 transitional care medical-surgical (TCU) beds at the Cornwall campus
**Closed in September 1999

LHC's 72.7 percent overall occupancy level in 1999 was third only to Inova Fairfax Hospital's level of 89.2 percent and Reston Hospital Center's 72.8 percent.

LHC contends that, according to "nurse station statistics," its medical-surgical, pediatric and transitional medical-surgical beds were occupied at a level of 84.4 percent in the hospital's fiscal year 1999 and 98.5 percent in fiscal year 2000. These figure comport closely with the level of occupancy DCOPN calculates LHC to have experienced if the 20 TCU beds (which were lightly utilized and operational for a period of less than six months during 1999 and 2000) are excluded from the calculation and the nine beds that became operational in January 2001 are included.

If LHC's medical-surgical and pediatric occupancy is computed without the 20 beds – located at the Cornwell Street facility and no longer used, and without the recently-added 9 beds, then its 2000 utilization level is 98.8 percent. In final argument, LHC argued that its "medical-surgical beds have experienced a daily occupancy rate of more than 100 percent for the past 12 months and for the better part of 1999 as well."

LHC states that occupancy at LCH is continuing to grow with a budgeted occupancy for medical-surgical and pediatric services of 92.7 percent in 2001. If the proposed project to add 19 additional medical-surgical beds is approved, the applicant projects a medical-surgical and pediatric occupancy level of 84.8 percent in 2004. These projections are based, in part, on the substantial population growth in Loudoun County. LHC adds that 80 percent of this projected growth will occur within a 15-minute drive of LHC.

The SMFP does not authorize a facility-specific perspective in the calculation of bed need. Under general circumstances, the planning district is the most rational basis for administering state-wide programs locally. The SMFP is a static tool that may not

recognize unusual circumstances or rapidly developing need. may not, however, recognize every instance of need. In light of a prevailing high occupancy level for medical-surgical beds and a rapid increase in combined medical-surgical and pediatric utilization of 18.9 percent at LHC in the four-year period ending in 2000, for an average annual increase of 6.3 percent, this provision of the SMFP may not reliably indicate the magnitude of need for rapidly growing localities like Loudoun.

D. Computation of the need for general medical/surgical and pediatric beds. 1. A need for additional acute care inpatient beds may be demonstrated if the total number of licensed and approved beds in a given category in the planning district where the proposed project will be located is less than the number of such beds that are projected as potentially necessary to meet demand in the fifth planning horizon year from the year in which the application is submitted.

According to the SMFP formula, there is a surplus of 290 medical-surgical and pediatric beds in PD 8 through 2006. While the SMFP formula projects a utilization level for medical-surgical and pediatric patient days of 423,121 in 2006, the actual patients days reported by PD 8 hospitals in 1999 was 404,579 – 95.6 percent of patient days projected for 2006, as calculated below.

2. The number of licensed and approved general medical/surgical beds will be based on the inventory presented in the most recent edition of the State Medical Facilities Plan or amendment thereof, and may also include subsequent reductions in or additions to such beds for which documentation is available and acceptable to the department. The number of general medical/surgical beds projected to be needed in the planning district shall be computed using the following method:

> *a. Determine the projected total number of general medical/surgical and pediatric inpatient days for the fifth planning horizon year as follows:*
>
> > *(1) Sum the medical/surgical and pediatric unit inpatient days for the past three years for all acute care inpatient facilities in the planning district as reported in the Annual Survey of Hospitals;*
> >
> > *(2) Sum the planning district projected population for the same three year period as reported by the Virginia Employment Commission;*
> >
> > *(3) Divide the sum of the general medical/surgical and pediatric unit inpatient days by the sum of the population and express the resulting rate in days per 1,000 population;*
> >
> > *(4) Multiply the days per 1,000 population rate by the projected population for the planning district (expressed in 1,000s) for the fifth planning horizon year.*

Projection of General Medical-Surgical and Pediatric Inpatient Days for 2006 in PD 8

Sum of '97, '98, '99 Patient Days for PD 8	Sum of '97, '98, '99 Population of PD 8	Patient Days per 1,000 Population	2006 Projected Population of PD 8	Projected Patient Days in 2006 for PD 8
1,134,658	5,072,517	223.69	1,891,550	423,121

As noted above, the projected total number of general medical-surgical and pediatric inpatient days for the fifth planning horizon year, *i.e.*, then, is 423,121. The actual patients days reported by PD 8 hospitals in 1999 was 404,579 – a figure that is 95.6 percent of projected patient days for 2006. This relationship indicates that the projection may not be reliable as an index of need.

b. Determine the projected number of general medical-surgical and pediatric unit beds which may be needed in the planning district for the planning horizon year as follows:

(1) Divide the result in subdivisions D 2 a (4) (number of days projected to be needed) by 365 [to obtain the average daily census];

(2) Divide the quotient obtained by .85 in planning districts in which fifty percent or more of the population resides in non-rural areas and .75 in planning districts in which less than fifty percent of the population resides in non-rural areas.

Projection of General Medical-Surgical and Pediatric Bed Need for 2006

Projected Patient Days in 2006 for PD 8	Projected Average Daily Census in PD 8 for 2006	Projected Bed Need at 85 Percent Occupancy for PD 8
423,121	1,160	1,365

c. Determine the projected number of general medical/surgical and pediatric beds which may be established or relocated within the planning district for the fifth planning horizon year as follows:

(1) Determine the number of licensed and approved medical-surgical and pediatric beds as reported in the inventory of the most recent edition of the State Medical Facilities Plan, available data acceptable to the department;

(2) Subtract the number of beds identified in 2 a above [sic; the subdivision directly above] from the number of beds needed as determined in 2 b (2). If the difference indicated is positive, then a need may be determined to exist for additional general medical-surgical or pediatric beds. If the difference is negative, then no need shall be determined to exist for additional beds.

Need for Medical-Surgical and Pediatric Beds in PD 8

Current Inventory	Total Bed Need at 85 Percent Occupancy	Surplus
1,655	1,365	290

Note: Current Inventory excludes 94 general Medical-Surgical beds closed at Pentagon City Hospital in September 1999, but includes 9 general M-S beds approved for Inova Fair Oaks Hospital in September 2000.

As shown in the table below, 1999 reported patient days in PD 8 were already 95.6 percent of the 2006 projected patient days. The planning district came within four percent in 1999 of what the SMFP formula indicates should be the medical-surgical and pediatric utilization level in the planning horizon year of 2006.

Relationship of Projected 2006 General Medical-Surgical and Pediatric Patient Days and Actual 1999 Patient Days for PD 8

Projected 2006 Patient Days	1999 Actual Patient Days	Actual 1999 Patient Days as a Percentage of Projected 2006 Patient Days	Average Annual Percentage Increase 1996 through 1999
423,121	404,579	95.6	3.2

Based on the assumption that utilization in the planning district will continue to increase at the average annual rate of 3.2 percent – experienced between 1996 and 1999, then by applying this rate to the 1999 actual utilization and to succeeding years up to 2006, the following alternative calculation may be helpful in determining need.

Alternative Need Calculation Based on Historical Growth Rate of Patient Days in PD 8

1999 Actual Patient Days	Projected 2006 Patient Days (at a 3.2 Percent Average Annual Growth Rate)	Total Bed Need at 85 Percent Occupancy Rate	Current Inventory of Beds	Number of Surplus Beds
404,579	504,384	1,626	1,655	29

When taking account of the number of actual patient days experienced in 1999 and increasing that number at the current growth rate, PD 8 would have a surplus of only 29 general medical-surgical and pediatric beds in 2006 under this calculation.

Another alternative index of need would involve looking at the conditions surrounding LHC specifically. The SMFP does not affirmatively authorize such an approach. Generally, the planning district represents the more appropriate quantum in distributing health care facilities and resources.

The SMFP, however, appears not to recognize every instance of need, and recent amendments to Virginia law affirmatively require consideration of special circumstances.

As noted below, the General Assembly amended Section 32.1-102.3 B of the *Code of Virginia* in 1999 to direct attention to "the needs of rural populations in areas having distinct and unique geographic, socioeconomic, cultural, transportation, and other barriers to access to care." (*See* Acts of Assembly, c. 926, 1999.) In light of the potential of the proposed project to enhance availability of hospital services to residents of Loudoun County, a third of which reside in rural areas, the project may be seen as the type of proposal to be afforded careful attention under this consideration, as amended.

Under an analysis of need within a hospital-specific scope, if the average annual growth rate of 6.3 percent – experienced in medical-surgical and pediatric bed use at LHC from 1997 through 2000, is applied to the actual 2000 medical-surgical and pediatric patient days at LHC successively for ensuing years, a projected need for 22 such beds at LHC in 2006 appears to exist. This need, as shown in the table below, approximates the LHC request for 19 additional general medical-surgical and pediatric beds.

Alternative Need Calculation for Medical-Surgical and Pediatric Beds Based on Historical Growth Rate of Patient Days at LHC

2000 Actual Patient Days	Projected 2006 Patient Days (at a 6.3 Percent Average Annual Growth Rate)	2006 Projected Average Daily Census	Total Bed Need at 85 Percent Occupancy Rate	Current Inventory of M-S and Pediatric Beds at LHC (January 2001)	Number of Beds Needed at LHC	Number of Beds Requested by LHC
18,775	25,483	70	83	61	22	19

Based on various assumptions, data and evidence, including matters discussed elsewhere in this report, matters related at the IFFC, as well as a surfeit of first-hand observations related by numerous persons in the community *via* letter and email, this calculation appears a reliable index of need in this case. General use of a hospital-specific calculation cannot, however, be allowed to supplant reliance on the planning district as a tool for rationally allocating health care resources.

12 VAC 5-240-50. Cost. [A. Not applicable.] B. Reasonable construction cost. 1. The cost per square foot of new construction as well as renovation to the existing facility should be consistent with state and regional costs for similar facilities and patient units.

The table on the following page provides a comparison of the cost per gross square feet (gsf) of construction and renovation projects reviewed by the department within the last 14 months. Direct construction costs for the proposed project are reasonable when compared with similar recently approved and pending proposals for new construction and renovations. Direct construction costs per gsf for this project are below the average and at median of the nine applications.

Comparison of the Proposed Project with Recent Construction Projects Costs

Facility	Status	GSF	Direct Construction Cost	Direct Construction Cost Per GSF	Capital Cost	Capital Cost Per GSF
Loudoun Hospital Center (subject project)	Pending	18,104	$ 4,133,000	$ 228.29	$ 5,875,600	$324.55
Inova Fairfax Hospital	Approved	345,633	$81,898,000	$236.95	$136,085,000	$393.73
Inova Fair Oaks Hospital	Approved	185,100	$44,045,134	$237.95	$ 70,349,029	$380.06
Prince William Hospital	Pending	38,064	$ 8,126,149	$213.49	$ 12,668,720	$332.83
Chippenham Medical Center	Pending	146,871	$32,314,527	$220.02	$ 43,646,401	$297.18
Johnston-Willis Medical Center	Pending	75,977	$17,213,755	$226.57	$ 24,555,377	$323.19
Fauquier Hospital	Approved	93,100	$20,581,094	$221.06	$ 32,223,040	$346.11
Reston Hospital Center	Approved	117,476	$27,122,194	$230.87	$ 36,151,358	$307.73
Reston Hospital Center	Pending	143,226	$28,099,051	$196.19	$ 45,045,967	$314.51
	Average	129,293	$29,281,434	$223.49	$ 45,177,832	$349.45
	Median	143,226	$27,122,194	$226.57	$ 36,151,358	$324.55

2. Preference will be given to those proposals which identify the major source of capital as accumulated reserves.

LHC stated in its application that the proposed project would be entirely financed with a $5.9 million conventional commercial loan at an interest rate of 8 percent over a 15-year term. The applicant has since advised, however, that it intends to fund the project using tax-exempt bonds, a fund-raising campaign or both.

In response to discussion regarding this provision of the SMFP at the IFFC, LHC has provided additional information suggesting that current market conditions are favorable for issuing long-term, fixed-rate debt, such as tax-exempt bonds, making the use of accumulated reserves less desirable for this project.

C. Operating cost and charges. 1. The applicant should demonstrate that projected operating costs and charge structure will be comparable or less than similar facilities operating in the same planning district.

The table on the following page shows the operating costs and charge structure per adjusted admission for ten of the acute care hospitals operating in PD 8 in 1998, the latest year for which these data are available.

Charge Structure and Operating Costs per Adjusted Admission at PD 8 Acute Care Hospitals

Facility	Gross Patient Revenue	Net Patient Revenue	Operating Costs	Operating Margin (Percentage)	Case Mix
Loudoun Hospital Center	$12,211	$6,346	$7,344	-8.37	0.93880
Alexandria Hospital (Inova)	$11,189	$6,009	$5,739	9.61	0.99653
Arlington Hospital	$13,881	$6,405	$6,010	7.92	1.02269
Fairfax Hospital (Inova)	$10,705	$6,031	$5,664	8.58	1.28164
Fair Oaks Hospital (Inova)	$ 9,830	$5,903	$5,392	9.31	0.82353
Mt. Vernon Hospital (Inova)	$10,643	$5,725	$5,735	1.54	1.28716
Northern Virginia Comm Hospital	$17,691	$6,879	$3,463	-19.98	1.30706
Potomac Hospital	$11,033	$6,975	$6,137	14.60	0.84559
Prince William Hospital	$ 9,676	$5,878	$5,697	16.36	0.82975
Reston Hospital Center	$13,256	$6,193	$5,411	13.40	0.91496
Average	$12,012	$6,235	$5,660	--	--
Median	$11,111	$6,112	$5,716	9.0	0.967665

LCH's charge structure was above the average and median for the ten acute care hospitals and its operating costs per adjusted admission were the highest in PD 8 during 1999.

In 1999, LHC experienced an operating loss of 8.37 percent, one of two hospitals in PD 8 that had an operating loss in that fiscal year. The median operating margin for the ten reporting hospitals in the planning district was 9 percent. In its application, LHC expects an operating margin of 3.8 percent in the first year of operation after implementation of the proposed project – 2003, and an operation margin of 4.4 percent in the second year.

LHC represents that its gross charges per adjusted admission increased by 16 percent over the two fiscal years 1998 and 2000, but that these charges should increase an average of only 2 percent a year from 2000 to 2004. LHC further states that its labor costs and total costs per adjusted admission declined from 1998 to 2000 as a result of a cost reduction program. After an expected market-based adjustment in salaries in 2001, LHC projects labor costs and total costs to increase less than 2.0 percent a year from 2000 to 2004.

LHC argues that it will realize improved efficiencies from operation of the proposed project, should it be approved. Essentially, the addition of 19 beds would allow LHC to spread its fixed costs over a greater number of admissions and patient days. At the IFFC, a partner in an audit firm, whose services have been retained by LHC, testified that the proposed project will make a contribution to profits higher than the existing facilities. This witness observed that

> the hospital spent a considerable amount to relocate and built this new hospital on the Lansdowne campus with considerable debt, but that

> infrastructure is there. The incremental . . . capital cost of doing this expansion is much lower than the fixed costs associated with the existing facility.

Further, this witness noted that

> if the project is not approved . . . [costs will be] higher than they would be . . . [if it is approved] and our profitability . . . [will be] reduced . . . . It's a small hospital . . . . [W]e are proposing to . . . [make] that infrastructure . . . more efficient.

More specifically, LHC expects that the operating margin relative to the 19-bed addition would be 21.6 percent for 2004, compared to an operating margin of 7.2 percent for the existing facilities of LHC.

[2. Not applicable.] 3. Preference should be given to those facilities which have consistently demonstrated the highest levels of charity care as a percent of total patient revenues as reported to the Virginia Health Services Cost Review Council [now defunct; regulatory activities and duties largely transferred to the Department of Health].

As discussed above, LHC provided $1,464.061 of charity care in 1999. This is equivalent to 1.3 percent of the hospital's gross patient revenues. The median charity contribution for PD 8 acute care hospitals was 2.3 percent in 1999.

LHC represents that it will continue to

> assure access to needed services to every person who can benefit from the services regardless of ability to pay. The proposed project will assure that needed healthcare services are maintained in Loudoun County and that those services more appropriately meet the needs for residents for improved access to such services at competitive costs.

LHC also notes that PD 8 has a low percentage of persons living at or below the poverty level and that the percentage of such persons living in Loudoun County is lower than the PD 8 level. These considerations may limit LHC's opportunity to make a larger contribution of resources to charity care.

12 VAC 5-240-60. Quality; accreditation and compliance with chapters. A. The applicant should provide assurances that the proposed facility or units will be designed, staffed, and operated in compliance with applicable state licensure chapters.

LHC is currently licensed by the Virginia Department of Health. The applicant further offers assurance that the project will comply with all applicable licensure rules and regulation as set forth by the Commonwealth of Virginia.

B. The applicant should agree to apply for accreditation with the Joint Commission on Accreditation of Healthcare Organizations or other appropriate accreditation organization.

LHC is currently accredited by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and plans to undergo continual review on a regular basis.

3. The relationship of the project to the long-range development plan, if any, of the person applying for a certificate.

LHC's board of directors has adopted a strategic plan. The executive summary of the plan states that "[c]onsistent with . . . [its] mission, Loudoun is in the midst of creating the base to transition from a small, community hospital to a community-responsive future regional provider of health care services. This transition will take place over many years, paced by and correlated to the growth and development occurring in the service area."

In accordance with the LHC strategic plan, LHC expects its position to exhibit the following qualities in 2003:

(i) Optimal use of Lansdowne, Cornwall and other system facilities;

(ii) Master-planned, multi-site county-wide delivery infrastructure;

(iii) Independent with selected business relationships with appropriate partners;

(iv) Fiscally strong/A-rated credit;

(v) Premier customer service across the organization;

(vi) Broader primary care base with good patient access;

(vii) Effective utilization management and quality improvement;

(viii) Efficient ED [Emergency Department] with good patient satisfaction;

(ix) Cohesive organizational culture with effective communication and collaboration; and

(x) Strong information systems capabilities including Internet and e-commerce components.

LHC intends the proposed project to address the rapid population growth of Loudoun County. The project is consistent with the hospital's strategic plan.

4. The need that the population served or to be served by the project has for the project, including, but not limited to, the needs of rural populations in areas having distinct and unique geographic, socioeconomic, cultural, transportation, and other barriers to access to care.

Total hospital utilization (excluding psychiatric and medical rehabilitation beds) in PD 8 reached 62 percent in 1999 (the latest year for which official data are available). As shown in the table below, the district has experienced an overall average annual increase in acute care utilization of 4.4 percent from 1996 to 1999. Two hospitals, LHC and Reston Hospital Center experienced average annual increases in utilization during the same time period of over 11 and almost 10 percent, respectively. These increases are likely attributable to the extraordinary population increases in eastern Loudoun and western Fairfax counties.

Medical/Surgical, Pediatric, Intensive Care and Obstetric Utilization at PD 8 Acute Care Hospitals, 1996 through 1999

Facility	Patient Days				Percent Change	Average Annual Percent Change
	1996	1997	1998	1999		
Loudoun Hospital Center (LHC)	18,627	19,436	21,584	24,956	34.0	11.3
Alexandria Hospital (Inova)	66,458	66,345	66,036	73,117	10.0	0.9
Arlington Hospital	54,773	55,985	55,584	60,976	11.3	3.8
Fairfax Hospital (Inova)	171,360	175,403	184,160	194,272	13.4	4.5
Fair Oaks Hospital (Inova)	26,513	26,705	29,782	26,753	0.9	0.3
Mt. Vernon Hospital (Inova)	33,812	32,952	31,252	33,865	0.2	0.1
Northern Virginia Community Hospital	19,068	17,941	16,558	21,260	11.5	3.8
Pentagon City Hospital*	6,300	5,580	11,342	8,118	28.9	9.6
Potomac Hospital	25,182	25,997	27,798	29,919	18.8	6.3
Prince William Hospital	20,256	18,759	17,193	22,958	13.3	4.5
Reston Hospital Center	25,422	28,750	30,253	32,721	28.7	9.6
PD 8 Total	467,771	473,852	491,542	528,915	13.1	4.4
*Closed in September 1999						

Population projections published by the VEC indicate that Loudoun and Fairfax Counties can expect a population increase of approximately 83,000 people by 2006, a 7.4 percent increase over 2001 projections. Almost one-third of this increase is anticipated to occur in Loudoun County.

In March 2001, the U.S. Census Bureau released various population data for Virginia based on the 2000 census; the following table includes some of these data. Loudoun County grew at the highest rate of any Virginia county or incorporated place; its 2000 population totaled 169,599 – nearly a 97 percent increase over its 1990 population of 86,129.

In 1997, the state health commissioner approved LHC's proposal for a transitional care unit (TCU), discussed above, based in part on the "remarkable growth" of Loudoun County. In that year, the county was either the seventeenth or the nineteenth fastest growing population in the United States, depending on the reporting entity. As of 2001, Loudoun County is the third fastest growing county in the United States. At the IFFC on this proposed project, Senator William Mims observed that, "since the Lansdowne campus opened [in 1997], Loudoun's population has increased by approximately one family per hour seven days per week, eight hours per day."

Population estimates for the year 2000 have far exceeded projected estimates. In 1993, when LHC filed its original application to relocate its hospital to the Lansdowne campus, VEC projected that the county's 2000 population would reach 112, 311 and that by 2010 the population would total of 134,985. In reality, the current population of the county is 169,599 – nearly 60,000 more individuals than projected. According to the Loudoun County Department of Economic Development, the population should increase at its present growth rate to 238,000 by 2004 and 304,000 by 2010.

As the population of Loudoun County increases, so does the need for medical services. The current availability of beds at LHC is insufficient to handle the growing demand. LHC maintains that the medical-surgical beds of the hospital are steadily at occupancy levels of greater than 100 percent, while the remaining beds frequently reach peak capacity. The hospital frequently must place its emergency department on reroute status and divert emergency patients to other hospitals outside the community.

More and more residents of northern Virginia who do not reside in Loudoun County travel through the county on a daily basis. The large proportion of two lane roads and highways, LHC asserts, has led to an increased number of emergency traumas and has increased the population served beyond those residents who are included in the population estimates.

The State Health Commissioner and the Department of Health, Office of Adjudication, have received over 200 letters and emails from individuals and business entities voicing support from the community. Many of these communications relate distinctly personal, first-hand, and detailed accounts of problems encountered as a result of LHC's current limitations. Several community leaders and emergency medical officials have also written, showing their support for the proposed project and their concern over the potential for compromising patient care created by the overcrowding at LHC.

5. The extent to which the project will be accessible to all residents of the area proposed to be served.

Current demand on facilities at LHC interfere with the accessibility of Loudoun County residents to LHC. The proposed project, which would add 19 beds, stands to improve significantly access to hospital facilities in Loudoun county and relieve current pressures for beds.

LHC serves and will continue to serve Medicare and Medicaid patients. The applicant offers the assurance that "LHC will continue to assure access to needed services to every person who can benefit from the services regardless of ability to pay."

6. The area, population, topography, highway facilities and availability of the services to be provided by the project in the particular part of the health service area in which the project is proposed, in particular, the distinct and unique geographic, socioeconomic, cultural, transportation, and other barriers to access to care.

Northern Virginia, or PD 8, is a heavily populated area experiencing extraordinary development and population growth. Its population comprises 25 percent of the total population of Virginia. PD 8 is traversed by numerous U.S. and state highways as well as three interstate highways that have considerable traffic congestion, frequently causing considerable travel delays. Traffic congestion in PD 8 effectively prevent residents of Loudoun County from gaining access to hospital beds in other portions of the planning district.

LHC is an essential community hospital, as determined by HSANV. LHC is the only general acute care hospital located in Loudoun County, an area comprising 40 percent of the geographic area of PD 8. This proposal offers the benefit of significantly improving timely geographic accessibility to many people in Loudoun County. Adhering to a conceptually-devised expectation that Loudoun patients should be able to use unoccupied beds in eastern PD 8 and outside an acceptable scope of travel time, given the prevailing transportation challenges in northern Virginia, is not a realistic alternative.

7. Less costly or more effective alternate methods of reasonably meeting identified health service needs.

No viable, less costly alternative for the addition of beds is available to LHC. The capital cost of $324.55 per gross square foot is reasonable and comparable to other similar projects in PD 8.

8. The immediate and long-term financial feasibility of the project.

As discussed in detail above, implementation of the proposed project will improve the short-term and long-term financial viability of the hospital. Without approval of this project, the hospital would likely lose business and the profitability of its existing business base may begin to diminish.

An investment banker retained by LHC has reviewed the proposed project and represents that he is "highly confidant that . . . [LHC] can successfully fund" the project through tax exempt-bonds, assuming the continuation of certain current conditions.

9. The relationship of the project to the existing health care system of the area in which the project is proposed; however, for projects proposed in rural areas, the relationship of the project to the existing health care services in the specific rural locality shall be considered.

The proposed project appears necessary for LHC to continue providing health care to individuals in Loudoun County. Access issues, discussed above, are most critical in the western portion of the PD 8. LHC's proposed project would begin to correct some of the imbalances in the health system that have been created by a maldistribution of inpatient capacity within the region, as evinced by numerous expressions of support from the community for, and no known opposition to, the proposed project. Loudoun County constitutes 9.7 percent of the population of PD 8, but has 4.2 percent of inpatient beds, and 3.5 percent of the medical-surgical pediatric beds, within the planning district.

10. The availability of resources for the project.

LHC will finance the $5.9 million construction costs through the issuance of tax exempt bonds. The hospital represents that it has sufficient accumulated reserves to fund the project, but that its financial advisors recommend that the project be financed. Such financing is consistent with other projects in PD 8; HSANV estimates that more than $400 million in tax-exempt financing has been approved in PD 8 over the past two years.

11. The organizational relationship of the project to necessary ancillary and support services.

The proposed expansion would become part of a currently-operating, full-service hospital; all reasonably-expected necessary ancillary and support services are in place and available at LHC. Nursing vacancy levels have decreased at LHC and the hospital has begun an aggressive program of recruiting RNs, as discussed above.

12. The relationship of the project to the clinical needs of health professional training programs in the area in which the project is proposed.

Not applicable.

13. The special needs and circumstances of an applicant for a certificate, such as a medical school, hospital, multidisciplinary clinic, specialty center or regional health service provider, if a substantial portion of the applicant's services or resources or both is provided to individuals not residing in the health service area in which the project is to be located.

Not applicable.

14. The special needs and circumstances of health maintenance organizations. When considering the special needs and circumstances of health maintenance organizations, the Commissioner may grant a certificate for a project if the

Commissioner finds that the project is needed by the enrolled or reasonably anticipated new members of the health maintenance organization or the beds or services to be provided are not available from providers which are not health maintenance organizations or from other health maintenance organizations in a reasonable and cost-effective manner.

Not applicable.

15. The special needs and circumstances for biomedical and behavioral research projects which are designed to meet a national need and for which local conditions offer special advantages.

Not applicable.

16. In the case of a construction project, the costs and benefits of the proposed construction.

The proposed direct construction cost of approximately $324.55 per square foot is reasonable. HSANV believes the proposed project is crucial to LHC's ability to relieve its high bed utilization rate. Current conditions at LHC and the rapid population growth in the hospital's service area indicate that the proposed construction is necessary.

17. The probable impact of the project on the costs of and charges for providing health services by the applicant for a certificate and on the costs and charges to the public for providing health services by other persons in the area.

LHC represents that the proposed project would not increase the costs or the charges for providing health services to the public. This project may make LHC more efficient. LHC projects that its gross charges for adjusted admission should increase an average of 2 percent a year through 2004. The annual inflation rate is approximately 3 percent annually. The proposed project offers the opportunity to effectively leverage LHC's infrastructure, for which there are fixed, existing costs, across a larger number of admissions and patient days which, in turn, should result in higher overall profitability and efficiency, without an increase in charges.

18. Improvements or innovations in the financing and delivery of health services which foster competition and serve to promote quality assurance and cost effectiveness.

Not applicable.

19. In the case of health services or facilities proposed to be provided, the efficiency and appropriateness of the use of existing services and facilities in the area similar to those proposed, including, in the case of rural localities, any distinct and unique geographic, socioeconomic, cultural, transportation, and other barriers to access to care.

Loudoun County is now the third fastest growing county in the United States. Traffic congestion on the roads of PD 8, as well as geographic distances, make use of health care facilities – concentrated in the eastern portion of the planning district – impractical and unsafe for the residents of Loudoun County. Loudoun County is 40 percent of the land mass of PD 8.

Allowing LHC to add 19 additional beds should not negatively effect other facilities in PD 8. HSANV has reached the same conclusion. The need in Loudoun County is distinct and significant because of extraordinary and unanticipated growth and development. Other counties and cities in PD 8 have more than one hospital situated proximally; Loudoun County has only one hospital.

The proposed project to increase the number of medical-surgical hospital beds at LHC by 19 has the potential to reduce the currently pervasive practice of re-routing emergency patients to other hospitals when beds are not available for such admissions at LHC. The project would also reduce the necessity for "boarder patients," who occupy space in the emergency department at LHC when general beds are unavailable. LHC represents that, since 1997, it has experienced a 32-percent increase in emergency department visits.

20. The need and the availability in the health service area for osteopathic and allopathic services and facilities and the impact on existing and proposed institutional training programs for doctors of osteopathy and medicine at the student, internship, and residency training levels.

Not applicable.

RECOMMENDATION

I have reviewed the application of Loudoun Hospital Center (LHC). I have heard from counsel to LHC in support of the application and from the staff of the Division of Certificate of Public Need who evaluated the proposal. I have considered the recommendation of the board of directors of the Health Systems Agency of Northern Virginia (HSANV),which recommended approval of a 16-bed expansion. Based on my assessment, and in light of the calculations above that appear to show a need for beds at LHC, **I have concluded that the proposal, as originally devised to seek 19 beds, merits approval.**

I do not recommend issuance of a COPN with a condition requiring a specific level of charity care, as authorized by Section 32.1-102.2 C of the *Code of Virginia*, due to the recent financial difficulties experienced by LHC and the expressed intention of LHC to seek in the near future additional health care facilities requiring a COPN (to which such a condition could be attached), but I recommend that LHC be strongly encouraged to work deliberately toward achieving a charity care level nearer the median level for PD 8.

The specific reasons for my recommendation include:

(i) The board of directors of HSANV unanimously recommended substantial approval of the proposed project;

(ii) Due to extraordinary population growth and development in Loudoun County, current and projected inpatient demand exceed LHC's existing licensed bed complement;

(iii) Increasing the bed complement by 19 beds would, essentially, give LHC three more beds than it had before the hospital relocated to Lansdowne in 1997, and would be substantially consistent with previous decisions allowing the reactivation of previously-licensed beds *when clearly warranted* and under similar circumstances;

(iv) Due to LHC's distinct service area and high utilization levels, the expansion of the hospital would not have a negative effect on any other community hospital;

(v) The projected capital and operating costs of the proposed project are reasonable and the project presents an opportunity for a small hospital to increase the efficiency of its existing infrastructure;

(vi) As a sole community provider and an essential community hospital that has a distinct service area, LHC merits this modest expansion despite the capacity and use levels experienced in the planning district as a whole; and

(vii) The proposed project is consistent with the guiding principles and underlying intent of the State Medical Facilities Plan (SMFP).

Respectfully submitted,

Douglas R. Harris, J.D.
Adjudication Officer